

IMPROVED DYNAMIC TIME DIVISION MULTIPLEXING CIRCUIT WITHOUT A SHADOW TABLE

Abstract

The invention relates to a telecommunication system split in a plurality of subsystems that is adapted to exchange n -bit frames there between according to the dynamic time division multiplexing (TDM) access method. According to that method, the time is split in time slots, each one corresponding to one among N logical channels, wherein N is the maximum number of logical channels that can be simultaneously opened. To each logical channel (X, \dots) is associated an identifier ($LC X, \dots$) coded on p bits. In accordance with the present invention, the improved circuit (30) first comprises a $n \times p$ memory block (31) to store the time slot assignment (TSA) table which describes the different time slot assignments by specifying which logical channel each bit position of the n -bit TDM frame (Bit1 to Bit n) it belongs to. It further comprises a register (32) having N fields with a granularity of one bit, each bit indicates the status of the corresponding logical channel associated thereto: "assigned" when it has a first value or "unassigned"

when it has another value. Finally, it comprises a logic circuit (33) connected to said memory block and register that enables or disables the transmission of the logical channel identifier to a time slot assignor depending on the status bit value.